

## REMARKS

The specification has been reviewed and found to contain minor inadvertent errors including three typographical errors and two mathematical errors.

The typographical errors include the term “super-sub” on page 6, line 28 of the specification, which has been replaced with the correct term “sub-stoichiometric.” There are only two meaningful terms, super-stoichiometric or sub-stoichiometric. In addition, page 8, line 19, has been corrected so that the definition of synthesis gas is within the parenthesis and not separated by commas. Finally, the phrase “higher hydrogen concentration” more correctly should read “higher syngas production” on page 12, line 17.

One of the mathematical errors appears on page 12, lines 23-23 in that 3 moles of hydrogen were inadvertently divided by the 4.4 moles of carbon monoxide to come up with 68% by volume hydrogen for the yield of reaction (3) and the erroneous conclusion that the hydrogen yield is far better than those shown in FIGS. 3-6. This is an obvious inadvertent calculation error. Of course, the volume % hydrogen of the reaction (3) product is 3 moles of hydrogen divided 7.4 moles times 100, i.e., the total moles of product to yield 40.5 volume (mole) percent hydrogen, which is comparable to the results shown in FIGS. 3-6. The other mathematical error is found on page 14, line 25, which discusses the results shown in FIGS. 8 and 9, not FIGS. 7 and 9. Consequently, the carbon dioxide to water ratio is 1.0 shown in FIG. 8 and not 1.3 in FIG. 7.

Claims 12 and 25 have been amended to lower the range of the ratio of hydrogen to carbon monoxide ratio from about 1.75 to 1.2, which is the value calculated from the method of the Gibbs Free Energy Minimization as supported on page 15, lines 14-20 of the specification.

The final correction is to FIG. 8, in which the lead line for CO<sub>2</sub> incorrectly points to HCl rather than that for CO<sub>2</sub>.

**Conclusion**

For the above reasons, Applicants respectfully submit that all pending claims in the present application are in condition for allowance. Such allowance is respectfully solicited.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (415) 267-6200.

Respectfully submitted,



Richard A. Dannells  
Registration No. 22,654

April 28, 2005  
COUDERT BROTHERS LLP  
One Market  
Spear Tower, Suite 2100  
San Francisco, CA 94105  
TEL: (415) 267-6200  
Fax: (415) 977-6110

**Amendments to the Drawings:**

The attached sheet of informal drawing of FIG. 8 replaces FIG. 8 submitted with the subject application filed November 21, 2003.

Attachment: Replacement Sheet for FIG. 8.